Co-funded by the
Erasmus+ Programme
of the European Union

Module 0
Introduction

Disclaimer

This Project (Vet for EI - 2017-1-TR01-KA202-046189) has been funded by the Erasmus+ Program of the European Union. However, European Commission and Turkish National Agency cannot be held responsible for any use which may be made of the information contained therein.

Module 0 Introduction

- 0.1 The Basic Concept of The Project
- 0.2 The Target Groups of The Project
- 0.3 The Aim of The Project
- 0.4 The Scope of The Project

Module 0 Introduction

Description of the module

This module will provide a short overview of:

- family centered early intervention
- routine based early intervention
- bioecological perspective for family centered early intervention
- target groups, aim, and the scope of the project

Module 0 Introduction

Main objectives of module

- to give basic knowledge about family centered and routine based early intervention.
- to give knowledge about bioecological theory.
- to explain why this project was needed?
- to explain why the curriculum on family-centered early intervention is written for physiotherapists?
- to give knowledge about aim, and the scope of the project

0.1 The Basic Concept of The Project

- 0.1.1 Family Centered Early Intervention
- 0.1.2 Routine Based Intervention
- 0.1.3 Bioecological Perspective for Family Centered Early Intervention

0.1 The Basic Concept of The Project

- All the infants/toddlers even if at risk, typical developing or atypical developing learn best through daily life experiences and interactions with familiar people in familiar contexts.

- The researches suggest that the early intervention should be mediated by family/caregivers daily in the child's natural environment.



https://www.funathomewithkids.com/2013/04/baby-play-kitchen-part-one-you-can-read.html?m=1

0.1.1 Family Centered Early Intervention

- Family-centered practices and family-centered care are terms that have been used widely to describe a particular approach to collaborate with parents of young children where parents are the primary persons who make informed decisions on behalf of their children.



- http://utilization.info/presentations.php

0.1.1 Family Centered Early Intervention

- The dimensions of family-centered practice:
  - Centrality of the family (the staff member cares about the entire family, not just the child with special needs)
  - Informed decision making by families (the staff member makes it clear that the family, collaboration of professional, is responsible for deciding what is done for the child and family)
  - Strengths perspective (the staff member understands that parents know their child better than anyone else does).
  - Not only do children with disabilities have special needs, but also families have unique needs as well (Moore 2012, Dunst 2016, Swanson 2011).
    - see module 4 for detailed information.
    - https://canchild.ca/en/research-in-practice/family-centred-service
    - http://www.puckett.org/presentations.php

0.1.1 Family Centered Early Intervention

- Every infant/toddler and his/her family in need of early intervention has the right to receive high quality services.
- Physiotherapist as a primer service provider of early intervention should be aware of Family Centered Early Intervention.
- Physiotherapists should use their knowledge and skills such as motor and self-care function, brain plasticity, developmental theories and match them with Family Centered Early Intervention to provide optimal conditions for the development of the infants, toddlers and their families.

0.1.2 Routine Based Intervention

- Routines are how families organise themselves to get things done, spend time together and have fun.
- In family routines there are all conditions for the infants/toddlers to learn: frequent practice, regular, consistent, feeling secure, confidence and independence
- Routine Based Early Intervention respects to family and its unique routines and treats the baby and family as a whole.



0.1.2 Routine Based Intervention

- Prof. McWilliam has developed the Routines-Based Model for working with young children with disabilities and their families.

- Routines-based early intervention (RBEI) for children with or at risk for developmental delay encourages collaboration between professionals and families to enhance children's participation in family routines with family-selected goals.
- It emphasizes;
  - children’s functioning in their everyday routines
  - supporting families.

  - see module 4 for detailed information.

0.1.2 Routine Based Intervention

- The whole model consists of 17 components, organized by (a) intervention planning, (b) providing supports, and (c) the Engagement Classroom Model.
- The intervention plan is developed by;
  - determining the family's ecology and the family's needs,
  - writing child-level functional goals and family goals.

- http://eieio.ua.edu/routines-based-model.html

0.1.2 Routine Based Intervention

EcoMap

- Robin McWilliam, began using EcoMap as a component of his Routines Based Intervention approach. In his article Understanding the Family Ecology (2001), Dr. McWilliam calls the EcoMap the “most important activity of the intake visit”.
- An ecomap is a graphic representation (map or drawing) of the nuclear family surrounded by the families informal (friends, extended family members), formal (early intervention providers, service agencies), and intermediate support(s) (work, church).
- The purpose of the ecomap is to understand the families’ ecology and their environment.
- Understanding the social supports of the families is positively linked with achievement of early intervention outcomes (Dunst 2000).

0.1.2 Routine Based Intervention

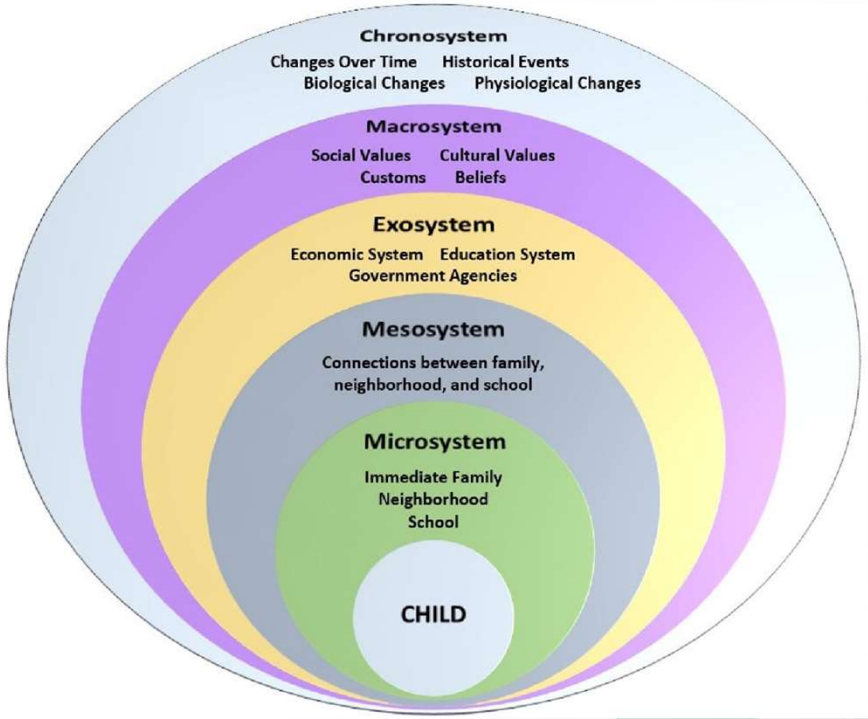
- **Routine Based Interview (RBI)** is also essential for routine based intervention.
- It is a semi-structured interview about the family's day-to-day life, focusing on the child's engagement, independence, and social relationships.
- It has 3 purposes:
  - develop a list of functional outcomes
  - assess child and family functioning
  - establish a positive relationship with the family (McWilliams 2009).

0.1.2 Routine Based Intervention

- Attention is paid to the needs of all family members and the needs of everyday life.
- The interviewer encourages the family to choose 6 to 10 informal outcomes, which are written down more or less verbatim.
- Once chosen, the family is asked to put the outcomes (goals) into priority order.
- The concerns and priorities component of the RBI therefore consists of summarizing concerns, listing informal outcomes, and putting the outcomes into priority order (McWilliams 2009).
    - see module 3 and 4 for detailed information.

0.1.3 Bioecological Perspective for Family-Centred Early Intervention

- Urie Bronfenbrenner (1917-2005) developed the *ecological systems theory* to explain everything in a child and the child's environment affects how a child grows and develops.
- Then he extended the model with Ceci S. J. and named it 'bioecological' model.
- The model is termed as PPCT-process-person-context-time (Bronfenbrenner 1995).



Tywanquila Lavarre Walker.2016

0.1.3 Bioecological Perspective on Family Centered Early Intervention

- Bronfenbrenner's (1979; 1993) bioecological model acknowledged that children grow and develop in a social and cultural context influenced by the bi-directional interactions and relationships within and between the environments they inhabit.
- Their learning and development is therefore socially and culturally constructed through interactions and relationships with others in environments where meanings and languages are shared, as summarized by Bronfenbrenner (2001: 6965):
- Over the life course, human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving bio-psychological human organism and the persons, objects, and symbols in its immediate external environments.
- To be effective the interactions must occur on a fairly regular basis over extended periods of time.

https://www.cyc-net.org/profession/readarounds/ra-fenske.html

0.1.3 Bioecological Perspective on Family Centered Early Intervention

PPCT-**process**-person-context-time

Process

- The dimension in the bioecological model involved the face-to-face, interpersonal dyadic or more complex proximal processes between the child and others with whom he or she had mutual attachment. These interactions, in particular, their duration, frequency, interruption, timing and intensity, were seen to be instrumental in instigating, and influencing development (Bronfenbrenner and Evans, 2000). Because such processes were context-specific, each and every ecological environment which included them was pluralistic and complex in character (Lüsher 1995), described by (Bronfenbrenner and Evans 2000, p122) as ‘engines of development’.

0.1.3 Bioecological Perspective on Family Centered Early Intervention

PPCT-process-**person**-context-time

Person

- This model encompasses the personal factors which the child brings, often congenitally, to her or his dyadic or multi-person activities. His growing concern for and recognition of such attributes as unique and significant contributors to development is summarized in the notion of ‘person’ (Brown, Rozsahegyi 2018).

0.1.3 Bioecological Perspective on Family Centered Early Intervention

PPCT-process-person-**context**-time

Context

- Bronfenbrenner explained how influential contexts were located at a range of distances from a child's personal, day-to-day experiences. The first and proximate was termed as **'microsystems'.** This is the closest environment to the child. It is those who have direct contact. It includes family members, teachers, daycare workers, and other caregivers. The relationships in this environment are bi-directional, which means how people treat the child will affect how the child treats them in the return. This is the most influential environment in the theory.

0.1.3 Bioecological Perspective on Family Centered Early Intervention

- The second layer is termed as **'mesosystems'.** Mesosystem consists of the connections between the different microsystems. It refers to those situations or events in which two or more microsystems come together. They may not be direct relationships with the child, but still influence the child on a direct level. For example, if a child is neglected by his parents, he may have a low chance of developing positive attitude towards his teachers. Also, this child may feel awkward in the presence of peers and may resort to withdrawal from a group of classmates.
- https://healthresearchfunding.org/urie-bronfenbrenners-ecological-systems-theory-of-child-development/

0.1.3 Bioecological Perspective on Family Centered Early Intervention

- The third level is **‘exosystems’**. This is the environment that does not involve active participation from the child, but it still offers a setting that affects their development. These could include health and welfare services or the parent’s workplace and social networks. For example, flexible work schedules, paid maternity/paternity, and leave for parents whose children are ill will aid parents in their parenting roles and indirectly enhance the development of children.

0.1.3 Bioecological Perspective on Family Centered Early Intervention

- The fourth level is **‘macrosystems’.** This is the environment which involves the culture in which a child lives. It is the overall set of systems that support how a child lives every day. Government systems, religious values, and economic conditions are three common types of environments that can have a positive or a negative effect on a child.

0.1.3 Bioecological Perspective on Family Centered Early Intervention

- The last level is **‘chronosystem’.** This system highlights the impact of time on this system of nested relationships; all of the sub-systems are situated in time and can change over time (Bronfenbrenner, 1992)

0.1.3 Bioecological Perspective on Family Centered Early Intervention

PPCT-process-person-context-**time**

Time

- Conceptualised as involving the multiple dimensions of temporality, for example, ontogenetic time, family time and historical time, constituting the chronosystem that moderates change across the life-course.
- The individual's own development life course is seen as embedded in and powerfully shaped by conditions and events occurring during the historical period through which the person lives (Bronfenbrenner, 1995:640).

0.1.3 Bioecological Perspective on Family Centered Early Intervention

- According to Bronfenbrenner (1993: 11), the personal activity, setting, caregiver and child characteristics were most likely to be most potent in affecting the course of development.
- The family members are permanent in children's lives, not early intervention experts.
- So it is essential for the physiotherapist to
  - understand families in their unique way without interrogating, categorizing.
  - empower families through understanding their strengths and needs
  - know; all the environment setting and connections between various systems can affect the child equally and all of them is important.

0.2 The Target Groups of The Project

- 0.2.1 Physiotherapists
- 0.2.2 Families

0.2.1 Physiotherapists

- Physiotherapist help individuals improve or restore mobility and prevent or manage health conditions.
- Physiotherapists use interventions to help individuals move, reduce pain, restore function, prevent disability and promote wellness and participation in life.
- Physiotherapy is a primary service in early intervention.
- Physiotherapists work collaboratively as members of a team.
- Physiotherapists are service providers, consultants, and can be service coordinators.
- https://pediatricapta.org/special-interest-groups/early-intervention/pdfs/Role%20of%20PT%20in%20EI.pdf

0.2.1 Physiotherapists

- Due to the scope of the working group, the undergraduate education includes very wide and different contexts and this can vary from country to country.
- Undergraduate education doesn’t give enough competence and skills for working at early intervention.
- Physiotherapists should be specialized in early intervention at postgraduate level.
- They join courses, congress, master and PhD programmes, lifelong learning programs for specializing.
- This requirement of postgraduate education on early intervention for physiotherapists constitutes the background of the project.

0.2.2 Families

- The life of families with children with special needs is slightly different from the typical family life.
- Special needs such as early intervention and hospital visits can make the family further away from typical life.
- Family-centered approaches are a good option to change this situation in a positive way.
- Family-centered practices are also important to empower the family and ensure the continuity of therapies.

0.2.2 Families

- To make the babies to reach their developmental potential, communication, movements and social opportunities should be ensured in the natural environment of the babies.
- With support to the family, the baby's natural habitat can be enhanced.
- In this respect, families are the target group of the project.

0.3 The Aim of The Project

- 0.3.1 The aim of the project for physiotherapists
- 0.3.2 The aim of the project for families
- 0.3.3 The aim of the project for society

0.3.1 The Aim of the Project for Physiotherapists

- There is little time in the academic or clinical preparation of physical therapists to gain the in-depth knowledge and skills of the complex limitations in body structures and functions, and restrictions in activities and participation that can affect infants and young children and how these affect their family.
- Bruder and Dunst (2005) note that of all of the personnel preparation programs they studied, physical therapy programs had the lowest level of training in the recommended areas of early intervention practice.
- Physical therapists who wish to serve young children and their families need to acquire independently the knowledge and skills necessary to provide effective and efficient services (Chiarello 2006).

0.3.1 The Aim of the Project for Physiotherapists

- In the light of these knowledge aim of the Project is to be a guide for physiotherapists who are/wishing working in early intervention.
- The Project will give to physiotherapists knowledge about:
  - the central importance of the family, and be able to provide family centered services
  - supporting the parents' primary roles as mother and father to the child
  - collaborate and encourage family involvement with the early intervention process
  - transdisciplinary model for early intervention
  - selecting a variety of screening instruments and standardized measurement tools
  - development of central nervous system and mechanisms of neuroplasticity in early intervention.

0.3.1 The Aim of the Project for Physiotherapists

- Content of the training curriculum
- Module 0: Introduction
- Module 1: Ethics
- Module 2: Development and Learning and Developmental Risks
- Module 3: Screening and Assessment of the Development of Infants and Children (0-3 Years)
- Module 4: Working with children and families in natural contexts
- Module 5: Transdisciplinary Model in Early Intervention
- Module 6: The Role of Physiotherapists in Early Intervention
- Module 7: ICF-CY

0.3.2 The Aim of the Project for Families

- First three years of life is the fastest period in brain development and so in all areas of child development.
- To make the babies to reach their developmental potential, communication, movement and social opportunities should be ensured in the natural environment of them.
- Family-centered and play-based early intervention approaches provide the opportunity to occur the therapies in natural context and optimal conditions for baby development.

0.3.2 The Aim of the Project for Families

- The aim of project for families is also to increase awareness of them about:
  - development is dynamic process, it is variable and interacts with the environment.
  - importance of play for development
  - taking advantages of existing opportunities for interaction and play in family routines.
  - importance of family/baby interaction

0.3.3 The Aim of the Project for Society

- Early Intervention provides beneficial outcomes to children, family and community; maximizes the children's and families' chances for success, provides lasting benefits in children's life, prevents persistent social problems, social exclusion and damaging parenting and is cost-effective with long term public savings (Allen, 2011, Pithouse 2007, Barnes and Freude-Lagevardi 2002).
- James Heckman, researched the benefits of early childhood education on economy and formed the Heckman's Equation theory.

0.3.3 The Aim of the Project for Society

- James Heckman, researched the benefits of early childhood education on economy and formed the Heckman's Equation theory. According to one of his papers;
  - Early childhood program targeted to disadvantaged children and their families has substantial beneficial impacts on (a) health and the quality of life, (b) the labor incomes of participants, (c) crime, (d) education, and (e) the labor income of the mothers of the participants through subsidizing their childcare.
- https://heckmanequation.org/resource/invest-in-early-childhood-development-reduce-deficits-strengthen-the-economy/

0.3.3 The Aim of the Project for Society

- The project gives great importance to empowering the family.
- The family is the most important social unit of society.
- The family as a social institution is organically connected with society, and therefore some functions directly relates the requirements of the society itself.
- Raising awareness of the different community support levels that family needs to raise a child.
- “It takes a whole village to raise a child.”
  - West African adage

0.4 The Scope of The Project

- 0.4.1 Activities of the project
- 0.4.2 Outputs of the project

0.4.1 Activities of The Project

- Activities of the Project has design as 3 different group.
- **A. Transnational Partners Meetings (TPMs):** The aim of TPMs was to get together as partners in some certain periods during the Project life time to follow up administrative processes and to review the intellectual outputs.
  - **1. Transnational Partners Meeting (Kick-off Meeting)**: 16-18 January 2018, Istanbul, Turkey
  - **2. Transnational Partners Meeting**: 25-28 June 2018, Braga, Portugal
  - **3. Transnational Partners Meeting**: 20-23 November 2018, Birmingham, UK
  - **4. Transnational Partners Meeting**: 07-10 April 2019, Braga, Portugal
  - **5. Transnational Partners Meeting**: XXX 2019, Ankara, Turkey
  - **6. Transnational Partners Meeting** (**Closing Meeting)**: XXX 2019, Istanbul, Turkey

For further information, please visit: www.vetforei.eu

0.4.1 Activities of The Project

- **B. Short Term Joint Staff Trainings (Mobilities):** Every partner organizations has sent 2 physiotherapist to each of the mobilities. The aim of short term joint staff trainings was to take the feedback of learners for intellectual outputs of Project and also exchange practices and knowledge with local organizations and staffs.
  - **1. Short Term Joint Staff Training**: 20-25 November 2018, Birmingham, UK
  - **2. Short Term Joint Staff Training**: 07-12 April 2019, Braga, Portugal
  - **3. Short Term Joint Staff Training**: XXX 2019, Ankara, Turkey

For further information, please visit: www.vetforei.eu

0.4.1 Activities of The Project

- **C. Multiplier Events:** 2 different multiplier events were organized to disseminate the outputs of the project.
  - **Piloting of The Training**: It was organized by Cerebral Palsy Turkey together with the cooperation of Gazi University and Ministry of Family Labor and Social Services of Turkish Republic at XXX 2019 in Istanbul, Turkey. The aim of this event was to make a trial of written curriculum and its content. 20 physiotherapists from different cities of Turkey participated to piloting event which was held during 3 days.
  - **Closing Symposium**: Following completion of all project outputs and activities, the closing symposium was held on the subject of the New Approaches for Physiotherapists in Early Intervention Field, hosted by Cerebral Palsy Turkey in cooperation with all project partners at XXX 2019 in Istanbul, Turkey.

For further information, please visit: www.vetforei.eu

0.4.2 Outputs of The Project

- During the Project term, four different intellectual outputs have been created.
  - **Country Status Reports:** The reports were prepared in the first phase of the project for each partner countries (Turkey, UK, Portugal and also an EU overview) to show how the early intervention system is working and what the mechanism are in these countries.
  - **VETforEI Training:** The curriculum and course content for physiotherapists about family centered and play based approaches in early childhood intervention were created with the cooperation of all partners.
  - **Online Learning Platform:** It was created by using Moodle Tools and VETforEI Training was uploaded in it.
  - **Comparative Report:** This report was prepared in cooperation with all project partners about system differences and similarities between partner countries and also to show the best practices and the most efficient implementations in Early Childhood Intervention field.

For further information, please visit: www.vetforei.eu

References

Bruder, M. B., & Dunst, C. J. (2005). Personnel preparation in recommended early intervention practices: Degree of emphasis across disciplines. Topics in Early Childhood Special Education, 25(1), 25-33.

Bronfenbrenner, U. (1989) Ecological Systems Theory. In R. Basta (Ed) Six theories of child development: Revised formulations and current issues. Greenwich, CT: JAI pp 185-246

Bronfenbrenner, U. (1992) Childcare in the Anglo-Saxon mode. In M.E. Lamb, K.J. Sternberg, C.P. Hwang, and A.G. Broberg (Eds) Childcare in context. Hillsdale, NJ: Lawrence Erlbaum pp 281-191

Bronfenbrenner, U. (1993). The ecology of cognitive development: Research models and fugitive findings. In R. H. Wozniak & K.W. Fisher (Eds.), Development in context: Acting and thinking in specific environments Hillsdale, NJ: Erlbaum. pp 3-44

Bronfrenbrenner, U. (1998) Strengthening family systems. In E.F. Zigler and M.Frank (Eds), The parental leave crises: Toward a national policy. New Haven, CT: Yale University Press pp 143-160

Bronfenbrenner, U., (2001) The bioecology theory of human development. In N.J. Smelser and P.B. Baltes (Eds) International encyclopedia of the social and behavioural sciences 10 pp 6963-6970

Chiarello, L., & Effgen, S. K. (2006). Updated competencies for physical therapists working in early intervention. Pediatric Physical Therapy, 18(2), 148-158.

Dunst, C. J., & Espe-Sherwindt, M. (2016). Family-centered practices in early childhood intervention *Handbook of early childhood special education* (pp. 37-55): Springer.

Gaitanis, J., & Tarui, T. (2018). Nervous system malformations. *Continuum (Minneapolis, Minn.), 24*(1 CHILD NEUROLOGY), 72.

Gesell, A. (1954). Behavior patterns of fetal-infant and child; with evidences of innate growth factors. *Research publications-Association for Research in Nervous and Mental Disease, 33*, 114-126.

References

Hwang, A.-W., Chao, M.-Y., & Liu, S.-W. (2013). A randomized controlled trial of routines-based early intervention for children with or at risk for developmental delay. *Research in developmental disabilities, 34*(10), 3112-3123.

McWilliam, R. A., Casey, A. M., & Sims, J. (2009). The routines-based interview: A method for gathering information and assessing needs. *Infants & Young Children*, *22*(3), 224-233.

Moore, L., Koger, D., Blomberg, S., Legg, L., McConahy, R., Wit, S., & Gatmaitan, M. (2012). Making best practice our practice: Reflections on our journey into natural environments. *Infants & Young Children, 25*(1), 95-105.

Petr, C. G., & Allen, R. I. (1997). Family-centered professional behavior: Frequency and importance to parents. *Journal of Emotional and Behavioral Disorders, 5*(4), 196-204.

Rozsahegyi, T 2018 Bronfenbrenner's "bio-ecological" model and its application to understanding children's development. In Z Brown and S Ward (eds) Contemporary Issues in Childhood. Abingdon: Routledge, pp3-15.

Scherzer, A. L. (2000). *Early diagnosis and interventional therapy in cerebral palsy: an interdisciplinary age-focused approach*: Informa Health Care.

Shelov, S. P., & Hannemann, R. E. (1993). *Caring for Your Baby and Young Child: Birth to Age 5. The Complete and Authoritative Guide*: ERIC.

Swanson, J., Raab, M., & Dunst, C. J. (2011). Strengthening family capacity to provide young children everyday natural learning opportunities. *Journal of Early Childhood Research, 9*(1), 66-80.

Tomasello, N. M., Manning, A. R., & Dulmus, C. N. (2010). Family-centered early intervention for infants and toddlers with disabilities. *Journal of Family Social Work, 13*(2), 163-172.